



NEVADA DIVISION  
OF WATER RESOURCES



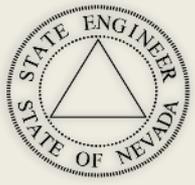
# Water Conservation Plans

Chris Thorson, P.E., Engineering Manager  
Amanda Brownlee, P.E., Water Planning  
*Division of Water Resources*  
*March 2019*



# NEVADA

Rural Water Association



**Tim Wilson, P.E.**  
*Acting State Engineer*

**Adam Sullivan, P.E.**  
*Deputy Administrator*

**Micheline Fairbank, JD**  
*Deputy Administrator*

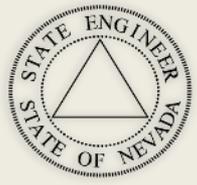
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*Director*



# Overview

- **Why have a plan?**
- **What does my plan need?**
  - **NRS 540.131**
  - **NRS 540.141**
- **Examples of some Plans**
- **Potential New Legislation**





# Why Have a Water Conservation Plan?

**Tim Wilson, P.E.**  
*Acting State Engineer*

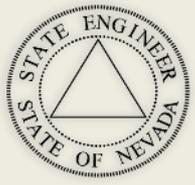
- **State Law Requires one (NRS 540.141)**
- **Fosters familiarity with the water system**
- **Utilize the source in an efficient manner**
- **It lays the framework if water is in short/diminished supply**
- **“Water Supplier” has a written strategy to impose necessary restrictions**

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*Deputy Administrator*

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# Statutory Requirements

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*Acting State Engineer*

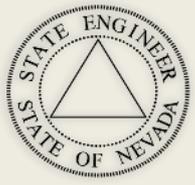
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- **Nevada Revised Statutes (NRS) 540.131 requires water conservation plans to be submitted to the Division of Water Resources. Requirement has been in place since July 1, 1992**
- **NRS 704.662 requires all water suppliers that are regulated by the Public Utility Commission (PUC) to submit their plan to the PUC. (Only if the utility is Rate Regulated)**
- **PUC regulated suppliers can still submit to the Division, as a courtesy**



# Statutory Requirements

- **CHAPTER 540 - PLANNING AND DEVELOPMENT OF WATER RESOURCES**
- <https://www.leg.state.nv.us/NRS/NRS-540.html>

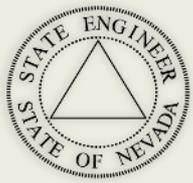
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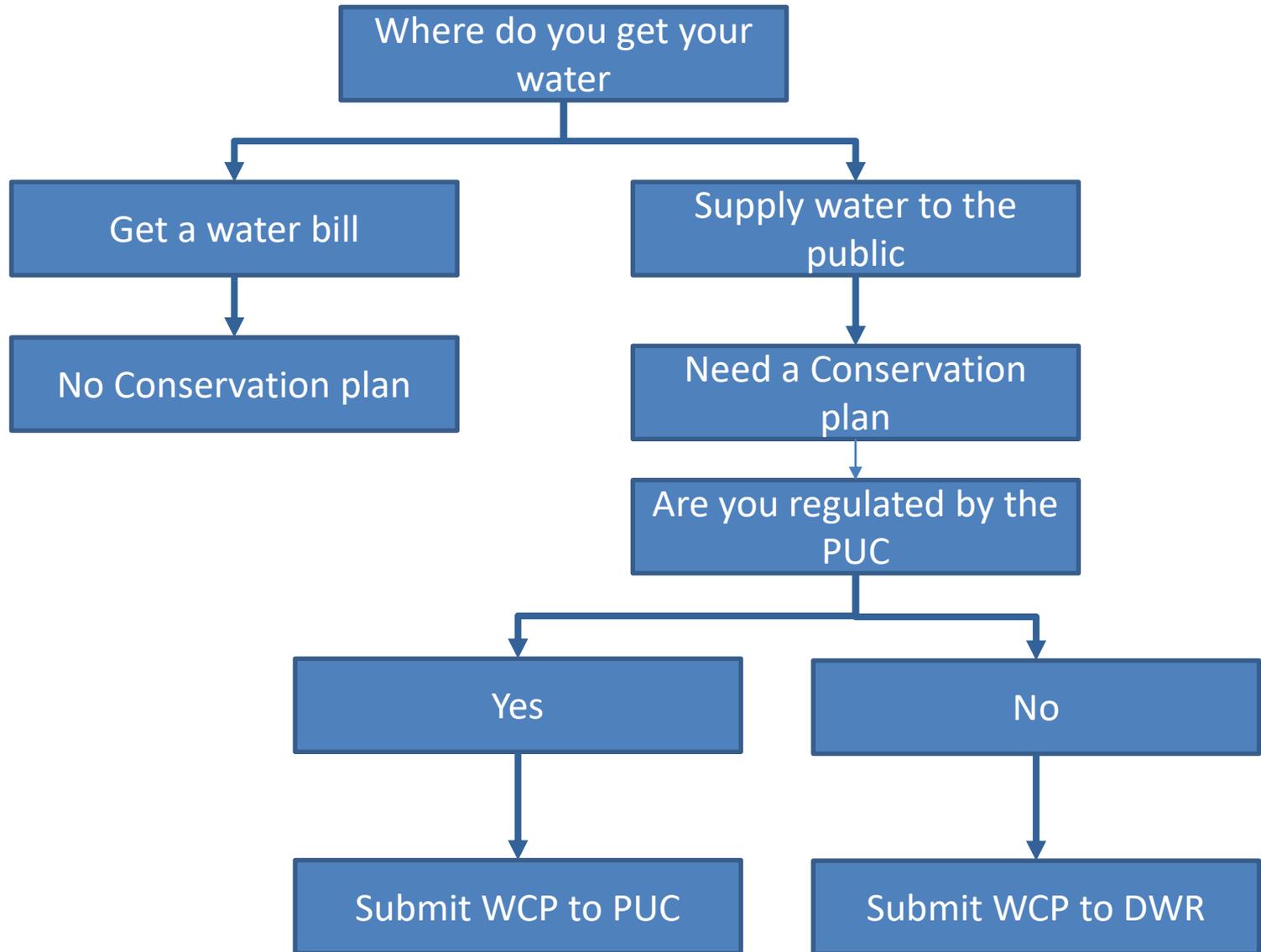
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# How do I know if I need a conservation plan?



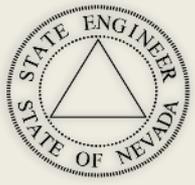
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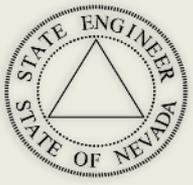
# Other Requirements

- Available at your office for public to read and review
- May be revised as often as needed
- Must be reviewed, updated, and submitted to the Division every 5 years.



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*Director*





# What every plan is required to have (NRS 510.141)

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Acting State Engineer

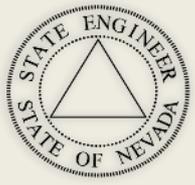
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Micheline Fairbank, JD  
Deputy Administrator

- **1. A plan or joint plan of water conservation submitted to the Section for review must include provisions relating to:**
  - **(a) Methods of public education to:**
    - **(1) Increase public awareness of the limited supply of water in this State and the need to conserve water.**

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Director





# Methods of public education

**Tim Wilson, P.E.**

*Acting State Engineer*

**Adam Sullivan, P.E.**

*Deputy Administrator*

**Micheline Fairbank, JD**

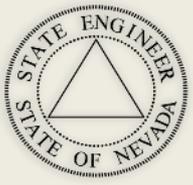
*Deputy Administrator*

- **School/Public Outreach**
- **Earth day events**
- **Distribute conservation material**
  - **Attached to bills**
  - **Mailers**
  - **Flyers/posters**
- **Commercials**
- **Radio Ads**
- **We encourage you to make your own materials**

**Bradley Crowell**

*Director*





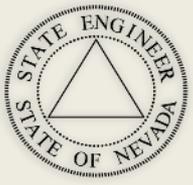
# What every plan is required to have

- **1. A plan or joint plan of water conservation submitted to the Section for review must include provisions relating to:**
  - **(a) Methods of public education to:**
    - **(2) Encourage reduction in the size of lawns and encourage the use of plants that are adapted to arid and semiarid climates.**



**Bradley Crowell**  
*Director*





# What every plan is required to have

- **(b) Specific conservation measures required to meet the needs of the service area...**
- **(c) The management of water to:**
  - **(1) Identify and reduce leakage in water supplies, inaccuracies in water meters and high pressure in water supplies; and**
  - **(2) Where applicable, increase the reuse of effluent**



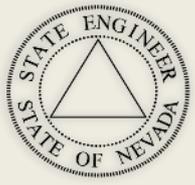
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*Director*





# Conservation Measures

**Tim Wilson, P.E.**  
*Acting State Engineer*

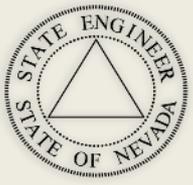
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**Micheline Fairbank, JD**  
*Deputy Administrator*

- **Use treated effluent where appropriate**
  - **Dust control**
  - **Landscaping**
  - **Parks/ Golf courses**
- **Use native plants and vegetation or vegetation with a low water requirement when landscaping**
- **Use automatic sprinklers and timers to reduce over watering**

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*Director*





# Conservation Measures

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Acting State Engineer

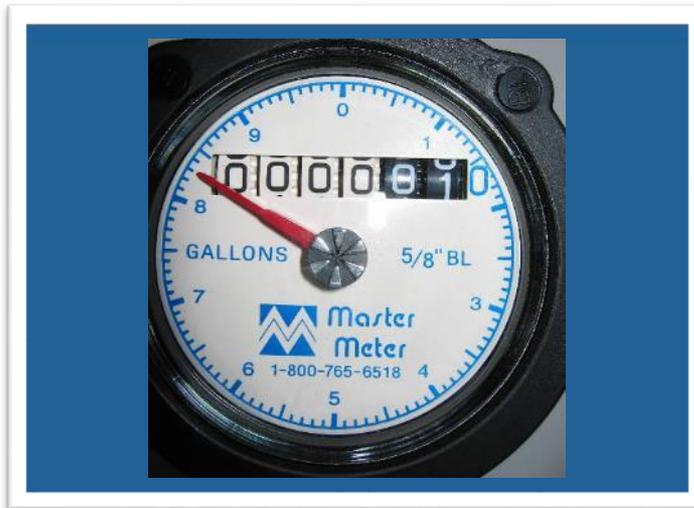
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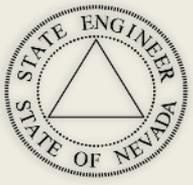
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Deputy Administrator

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Director



- Meters and meter replacement program
  - You can't manage what you can't measure.
- Leak detection
- Use of Effluent
- Compare previous pumping amounts to current
  - Per NRS 540.141 all systems should be moving towards metering.





# What every plan is required to have

- **(d) A contingency plan for drought conditions that ensures a supply of potable water.**
- **(e) A schedule for carrying out the plan or joint plan.**
- **(f) A plan for how the supplier of water will progress towards the installation of meters on all connections.**  
**(2017 Legislative update)**



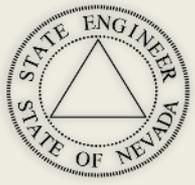
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# Drought Contingency Plan

- **It would spell out a course of action should greater provisions be triggered.**
- **It should be based on multiple levels of severity and response.**
- **Is a key component of the conservation plan**



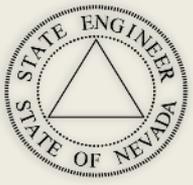
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# What every plan is required to have

- **(g) Standards for water efficiency for new development. (2017 Legislative update)**



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# What every plan is required to have

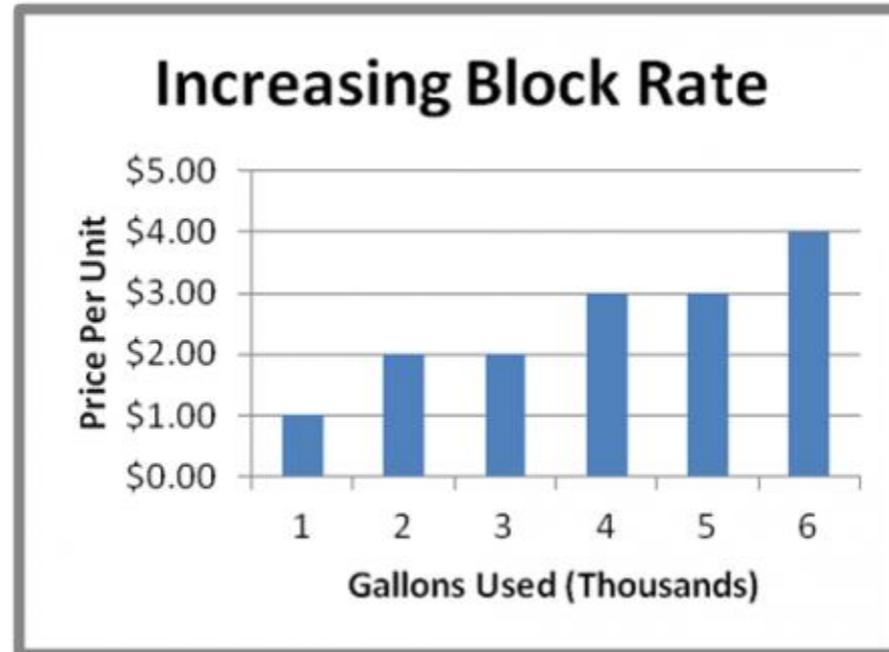
- **(h) Tiered rate structures for the pricing of water to promote the conservation of water, including, without limitation, an estimate of the manner in which the tiered rate structure will impact the consumptive use of water. (2017 Legislative update)**

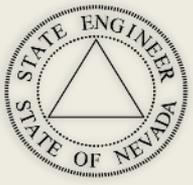
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# What every plan is required to have

- **(i) Watering restrictions based on the time of day and the day of the week. (2017 Legislative update)**



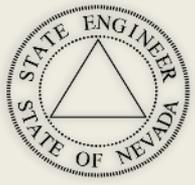
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*Director*





# If you have 500 or more connections NRS 540.141(2)

- **(a) Measures to evaluate the effectiveness of the plan or joint plan. (2017 Legislative update)**
- **(b) For each conservation measure specified in the plan or joint plan, an estimate of the amount of water that will be conserved each year as a result of the adoption of the plan or joint plan, stated in terms of gallons of water saved annually. (2017 Legislative update)**

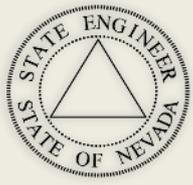
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# If you have 500 or more connections NRS 540.141(2)(b)

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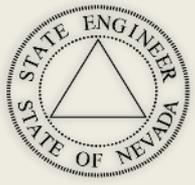
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Type	Estimated Usage (gpcpd)	Conservation Usage (gpcpd)	Savings (gpcpd)	Savings (%)
Toilet	18.3	10.4	7.9	43 %
Clothes Washers	14.9	10.5	4.4	30 %
Showers	12.2	10.0	2.2	18 %
Faucets	10.3	10.0	.3	3 %
Leaks	6.6	1.5	5.1	77 %

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*Director*





# DWR Responsibilities (NRS 540.141.3-5)

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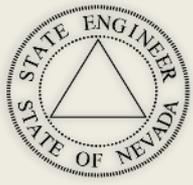
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- **The Division has 120 days after the Plan is submitted to approve or deny**
- **The Chief may exempt wholesale water purveyors from the provisions of this section, which do not reasonably apply to wholesale supply.**
- **The Division posts all approved Plans on our website**
- **If a section does not apply, you still must call out that section and explain why it doesn't apply.**



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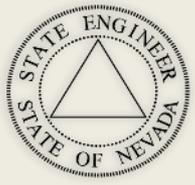
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*Director*



# Frequently Asked Questions

- **There are a bunch of us in the same area, can we submit a combined WCP?**
  - **Yes**
    - **You may join forces and submit a joint plan.**
      - **Each supplier must have the plan available to the public**
- **Do I have to do this on my own? I don't think I can do this.**
  - **No you do not.**
    - **Nevada Rural Water Association is a great resource to help with you WCP.**



# Where can I find an example plan?

**Tim Wilson, P.E.**

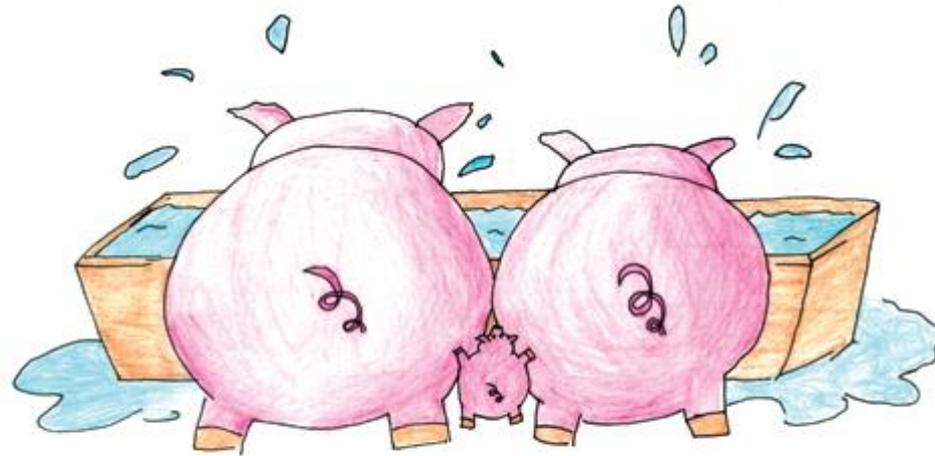
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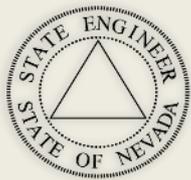


! DON'T HOG ALL THE WATER !  
Think 7 Generations Ahead

**Bradley Crowell**

*Director*





# State of Nevada Division of Water Resources

## Home

The mission of the Nevada Division of Water Resources (NDWR) is to conserve, protect, manage and enhance the State's water resources for Nevada's citizens. The Division is responsible for the appropriation and reallocation of the public waters. In addition, the Division is responsible for quantifying existing water rights; monitoring water use; disseminating information in accordance with court decrees; reviewing water availability for new subdivisions and condominiums; reviewing the construction and operation of dams; and reviewing geothermal water; licensing and regulating well drillers and water rights surveyors; reviewing flood control projects; monitoring water resource data and providing technical assistance to the public and governmental agencies.

### About Us

- [Contacts](#)
- [Frequently Asked Questions](#)
- [DWR Organizational Chart](#)
- [Information Series Reports](#)
- [General Publications](#)
- [Statutory Authority](#)
- [Nevada Water Law Overview](#)
- [Job Openings](#)

### Publications

- [Reconnaissance Series Reports](#)
- [Water Resource Bulletins](#)
- [Water Planning Reports](#)
- [Biennial Reports](#)
- [River Chronologies and Atlases](#)

### Recent News

- [Order 1303 Describing the System as an Administrative Application in Abeyance of a Moratorium on Final Submittals](#)
- [Order 1302 Granting Petition for Groundwater Management](#)
- [Order 1300 Curtailing New Smoky Valley-Tonopah F](#)
- [Public Workshop on Human](#)
- [Diamond Valley Objection](#)
- [Nevada Channel Restoration Application](#)
- [Diamond Valley Groundwater Submission](#)
- [Diamond Valley Preliminary](#)
- [Diamond Valley Abstract](#)
- [Newlands Project Water Meeting September 5, 20](#)
- [SNWA Ruling 6446](#)

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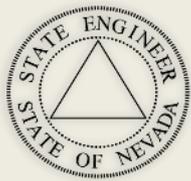
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[www.water.nv.gov](http://www.water.nv.gov)



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# State of Nevada Division of Water Resources

Site Search

## Programs

Well Drilling Dams and Dam Safety Floodplain Management **Water Planning** Adjudications Newlands Water Rights Mapping

Water Planning

State Of Nevada Water Conservation Planning Guide (Draft)

About the Water Planning Program

Contacts

Nevada State Water Plan

Water Words Dictionary

Water Planning Publications

Water Conservation Plans

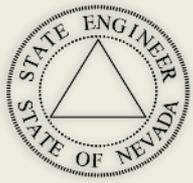
Nevada River Chronologies

Water Planning Resources

Compliance Enforcement

Water Planning Reports

Drought Information



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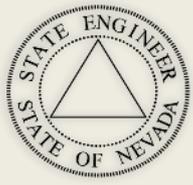

## Water Conservation Plans

Note: Conservation plans listed without a hot link have been approved but are not yet in a form that can be published on the web page.

\* These plans cover multiple counties.

<a href="#">Carson City</a>	<a href="#">Churchill County</a>	<a href="#">Clark County</a>	<a href="#">Douglas County</a>	<a href="#">Elko County</a>	<a href="#">Esmeralda County</a>	<a href="#">Eureka County</a>	<a href="#">Humboldt County</a>	<a href="#">Lander County</a>	<a href="#">Lincoln County</a>
<a href="#">Lyon County</a>	<a href="#">Mineral County</a>	<a href="#">Nye County</a>	<a href="#">Pershing County</a>	<a href="#">Storey County</a>	<a href="#">Washoe County</a>	<a href="#">White Pine County</a>			

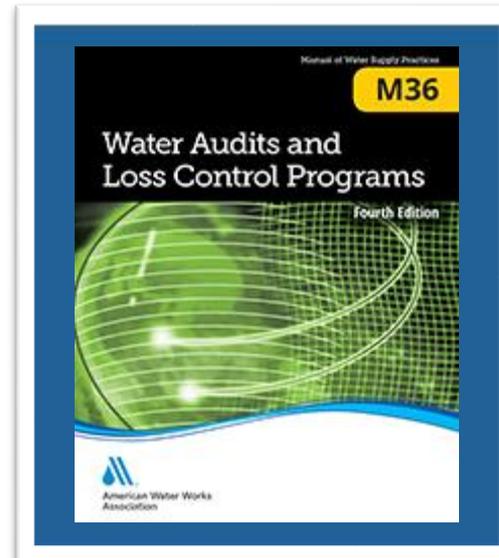
Carson City
<a href="#">Carson City WCP</a>
<a href="#">Mill House Inn Motel</a>
<a href="#">State of Nevada Dept. of Prisons</a>
<a href="#">Stewart Complex</a>



# AB-163 as Introduced

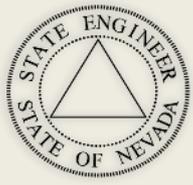
## AB-163 Text

- **New section to be added to NRS 540 and NRS 278**
  - **Suppliers must conduct water loss audit with methodology and software of American Water Works Association.**
- **If audit previously submitted, each update requires**
  - **A comparison from previous audit to current**
  - **Analysis of progress**



**Bradley Crowell**  
*Director*





# AB-163 as Introduced

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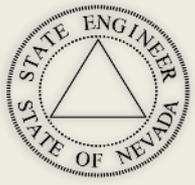
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- **NRS 540.141 (c)(1) proposed**
  - **Goals for acceptable leaks**
    - **Leakage index**
    - **Audit validity score**
    - **Basic apparent losses**
    - **Basic real losses**
    - **Economic level of leakage**
- **NRS 540.141 (c)(2)**
  - **A plan for how the supplier of water will progress towards the goals established for the acceptable levels of leakage.**



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# Questions?

## Contact:

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